



# FALSE KILLER WHALES ARE DOLPHIN PREDATORS? NOT SO FAST...

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**Top Photo:** Sometimes false killer whales do kill and eat large prey. This photo shows a broadbill swordfish, estimated to be about 3 m (10') long, sandwiched between two false killer whales, while a Wedge-tailed Shearwater attempts to scavenge bits of the fish. The swordfish (largely light gray in color) is upside down, with the bill underwater (and not visible) to the left, the two pectoral fins, anal fin, and tail fin (to the right), all visible in the air. All that is visible of the false killer whales are the tip of the dorsal fin of the close animal (on the left) and the back of the far animal. This photo was taken in July 2024 off Lānaʻi, and the whales are members of Cluster 4 of the endangered main Hawaiian Islands population. *Photo by Mark Mohler/ Cascadia Research.*

Do false killer whales kill and eat other dolphins? Perryman and Foster's (1980) "preliminary report on predation by small whales, mainly the false killer whale" has received a lot of attention over the years. Everyone likes an interesting story, so this report has been cited repeatedly in reviews on false killer whales as evidence that they feed on smaller dolphins, and I must admit that I am one of those who have cited it many times. But in hindsight, and from what we've learned about false killer whales over the last 30 years, I think any reference to them potentially feeding on other species of cetaceans should be made with caution.

The Perryman and Foster report was based on observers on purse seine vessels operating in the eastern tropical Pacific in the 1970s, where schools of dolphins would be encircled in order to catch associated tuna. False killer whales were reported to be attacking dolphins primarily as they were released from the purse seine nets, possibly injured by being in the net. One of the observers reported they "saw one whale come clear out of the water with a full grown porpoise crossways in its mouth, still struggling". But does this mean that false killer whales, like some populations of killer whales, should be considered dolphin predators? If in fact false killer whales do occasionally kill and eat smaller dolphins, it is surprising that no convincing evidence has emerged over the last 35 years, especially given the extensive long-term studies on this species in multiple areas around the world, the availability of stomach contents from stranded individuals in both the Atlantic and Pacific, and the frequent observations of false killer whales associating in a non-aggressive manner with other species of dolphins and whales (see Jochen Zaeschmar's article in this issue). In Hawai'i, we have documented false killer whales associated with common bottlenose dolphins, rough-toothed dolphins, spinner dolphins, pantropical spotted dolphins, pygmy killer whales, melon-headed whales, and short-finned pilot whales, and we have never seen any sign of aggression from false killer whales toward those other species. We have seen

bottlenose dolphins and short-finned pilot whales trying to take fish away from false killer whales, as well as rough-toothed dolphins scavenging prey dropped by false killer whales, but we have never observed aggression directed from the false killer whales toward these other species.

A lot is known about the diet of false killer whales. Stomach contents have been examined from at least 82 individuals from all around the world, and there are observations of predation by free-ranging individuals in New Zealand, Australia, Hawai'i, Central America, the Azores, and elsewhere. They have been documented feeding on 22 species of cephalopods and 40 species of fish (Zaeschmar and Baird in press), yet nowhere is there photographic or other documentation of them actually feeding on marine mammals. Perryman and Foster (1980) don't actually report observations of them consuming dolphins, and it is important to note that observations of one species of dolphin attacking or harassing another don't necessarily equate to them feeding on them. In the Gully, off Nova Scotia, I once witnessed long-finned pilot whales harassing a couple of northern bottlenose whales, and the same northern bottlenose whales shortly afterward harassing a fin whale. I am pretty sure none of it involved any intent to kill or eat the other species. The pilot whales may have been harassing the northern bottlenose whales to try to exclude them from the area, as there was likely some overlap in diet, but the bottlenose whales seemed to be just taking out their frustration on a more defenseless animal. In the San Juan Islands in 1994, I observed two Pacific white-sided dolphins dragging a newborn harbor porpoise around by its flipper and leaping on it (Baird 1998). Sometimes dolphins can just be jerks. There are many examples of larger odontocetes killing smaller odontocetes or harassing them, and consumption of the smaller species is not thought to be the motivation. Notable examples are of bottlenose dolphins killing harbor porpoises (Ross and Wilson 1996), or fish-eating killer whales killing, but not eating, porpoises (Giles et al. 2024). There is one report of false killer

whales "attacking and apparently killing a humpback calf in Hawaiian waters" (Hoyt 1983), but that too should be taken with a grain of salt—I spoke with someone who was there, and they said there wasn't any conclusive evidence of the false killer whales having either killed the calf, or consuming it (Baird 2016). Palacios and Mate (1996) reported an apparently aggressive interaction between false killer whales and sperm whales off the Galapagos, and they discussed three possible explanations (predation, food competition, and kleptoparasitism, or food robbery). There wasn't enough evidence to conclude which option was the motivation for the interaction, and there was no evidence that any sperm whales were actually killed.

Do false killer whales sometimes harass other species of cetaceans? Absolutely, but then again so do Risso's dolphins, bottlenose dolphins, short-finned pilot whales, and others. In those other species, it isn't thought that predation, or consumption, was the motivating factor, and I suspect that is also the case in most, if not all aggressive interactions involving false killer whales. For example, Acevedo-Gutiérrez et al. (1996) observed false killer whales aggressively chasing bottlenose dolphins off Isla del Coco, off Costa Rica. Could they occasionally kill and eat other smaller odontocetes? Anything is possible, but that alone should not drive the narrative of false killer whales being mammal-eaters, given the lack of any conclusive evidence. Why exactly the false killer whales were "attacking" dolphins being released from purse seine nets in the eastern tropical Pacific is unknown, but the available evidence is insufficient to confirm they were doing it to kill and consume the dolphins. With proliferating drones and the prevalence of more and higher-quality cameras in the hands of researchers and tour operators (and their passengers) around the world, if false killer whales do feed on other species of dolphins, evidence will eventually emerge. But at this point, we can safely say that the diet of false killer whales consists of a wide variety of fish and squid, wherever they happen to live.





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**Top Photo:** A group of false killer whales passing by several freedivers off Kona, Hawai‘i in April 2018. This group is part of the Hawai‘i pelagic population and several individuals matched to groups seen in October 2013 and May 2020. *Photo by Paul Okumura.*



  
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